

AMENDMENTS

In the Claims:

Please amend the claims as indicated hereafter.

1. (Currently Amended) A system for controlling a temperature of a liquid residing within a tank, comprising:

a temperature sensor configured to detect the temperature of the liquid;

a temperature control element configured to alter the temperature of the liquid;

a clock; and

logic configured to track usage of the temperature control element by monitoring an activation state of the temperature control element during a first time period while the temperature control element is being controlled based on a first temperature threshold, the logic further configured to automatically select, based on a time value indicated by the clock and the usage of the temperature control element during the first time period, a second temperature threshold for controlling the temperature control element during a second time period, the logic further configured to perform a comparison between the selected temperature threshold and a value indicative of the temperature detected by the temperature sensor during the second time period and to control the temperature control element during the second time period based on the comparison.

2. (Original) The system of claim 1, wherein the temperature control element comprises a heating element.

3. (Original) The system of claim 1, wherein the temperature control element comprises a cooling element.

4. (Original) The system of claim 1, wherein the logic is further configured to detect a length of time that the temperature detected by the temperature sensor remains within a specified temperature range, the logic configured to control the temperature control element, in response to a determination that the length of time exceeds a threshold, such that the temperature control element causes the detected temperature to increase above a threshold for a sufficient amount of time to ensure that bacteria within the tank is substantially killed.

5. (Original) The system of claim 1, wherein the logic is configured to select said temperature threshold based on a plurality of temperatures detected by a plurality of temperature sensors.

6. (Previously Presented) The system of claim 1, wherein the logic is configured to automatically generate data indicative of a usage history of the temperature control element, the logic further configured to automatically select the threshold based on the data.

7. (Original) The system of claim 6, wherein the logic is configured to activate and deactivate the temperature control element based on the temperature threshold and another temperature threshold, thereby providing an activation hysteresis for the temperature control element, the logic further configured to change the activation hysteresis based on the data.

8. (Canceled)

9. (Previously Presented) The system of claim 1, wherein the logic is configured to determine a total amount of time that the temperature control element is activated during the first time period and to select the second temperature threshold based on the total amount of time.

10. (Canceled)

11. (Currently Amended) A system, comprising:

a tank;

a temperature sensor configured to detect a temperature of a liquid residing within the tank;

a temperature control element coupled to the tank;

memory for storing data indicative of a usage history of the temperature control element;

and

logic configured to automatically select, based on the data, a threshold to be used for controlling the temperature control element, the logic further configured to control the temperature control element based on the data a comparison of the threshold to a value indicative of the temperature detected by the temperature sensor, wherein the threshold is not based on a current activation state of the temperature control element at the time of selection for the threshold.

12-13. (Canceled)

14. (Original) The system of claim 11, wherein the logic is configured to monitor the temperature control element in order to define the data.

15. (Canceled)

16. (Original) The system of claim 11, wherein the logic is configured to ensure that the temperature control element is periodically controlled such that an amount of bacteria within the tank remains within a desired range.

17. (Previously Presented) A system, comprising:

- a tank;
- a temperature sensor configured to detect a temperature of a liquid residing within the tank;
- a temperature control element coupled to the tank;
- memory for storing data indicative of a usage history of the tank;
- logic configured to automatically control the temperature control element based on the data; and

a second temperature control element, wherein the logic is configured to control the second temperature control element and to perform a verification that the second temperature control element is actually activated when the logic attempts to activate the second temperature control element, and wherein the logic is configured to automatically define the usage history based on the verification.

18. (Canceled)

19. (Original) The system of claim 11, wherein the logic is configured to control the temperature control element such that the temperature control element has an activation hysteresis, the logic configured to change the activation hysteresis based on the data.

20. (Original) The system of claim 19, wherein the logic is configured to decrease the hysteresis in response to a prediction that a high usage event associated with the tank is imminent.

21. (Previously Presented) The system of claim 11, wherein the temperature control element comprises a heating element.

22. (Currently Amended) A system, comprising:
a tank;
a temperature sensor coupled to the tank;
a temperature control element for controlling a temperature of a liquid residing within the tank; and

logic configured to determine a value indicative of ~~[[an]]~~ a total amount of time that the temperature control element is activated during a first time period and to establish a temperature threshold for a second time period based on the value, the logic configured to perform a comparison between the temperature threshold and a value indicative of a temperature of the liquid detected by the temperature sensor during the second time period, the logic further configured to control the temperature control element based on the comparison.

23-24. (Canceled)

25. (Original) The system of claim 22, wherein the logic is further configured to change an activation hysteresis for the temperature control element based on the value.

26. (Original) The system of claim 22, wherein the logic is further configured to ensure that the temperature control element is periodically controlled such that the temperature of the liquid remains at a sufficiently high level for a sufficient amount of time for preventing an amount of bacteria within tank from exceeding a desired level.

27. (Previously Presented) A system, comprising:

a tank;

a temperature sensor coupled to the tank;

a temperature control element for controlling a temperature of a liquid residing within the tank;

logic configured to determine a value indicative of an amount of the liquid drawn from the tank during a first time period and to establish a temperature threshold for a second time period based on the value, the logic configured to perform a comparison between the temperature threshold and a temperature of the liquid detected by the temperature sensor during the second time period, the logic further configured to control the temperature control element based on the comparison; and

a second temperature control element, wherein the logic is configured to control the second temperature control element and to perform a verification that the second temperature control element is actually activated when the logic attempts to activate the second temperature control element, and wherein value is based on the verification.

28. (Canceled)

29. (Previously Presented) The system of claim 22, wherein the logic is configured to determine the value by summing a plurality of activation times of the temperature control element.

30. (Previously Presented) The system of claim 11, wherein the logic is configured to automatically track usage of the temperature control element to define the data.

31. (Currently Amended) A method, comprising the steps of:
selectively activating a temperature control element to keep a liquid within a tank within a desired temperature range during a first time period;
detecting activations of the temperature control element during the first time period;
automatically selecting a temperature threshold for the temperature control element based on the detecting step and a time value indicated by a clock;
measuring a temperature of the liquid during a second time period;
comparing a value indicative of the measured temperature to the temperature threshold;
and
activating the temperature control element based on the comparing.

32. (Previously Presented) The method of claim 31, further comprising the step of determining an amount of time that the temperature control element is activated during the first time period, wherein the selecting step is further based on the determined amount of time.

33. (Previously Presented) The method of claim 31, further comprising the steps of:
automatically defining data indicative of a usage history of the temperature control element based on the detecting step; and
automatically selecting different temperature thresholds for the temperature control element based on the data.

34. (Currently Amended) A method, comprising the steps of:
detecting changes in temperature of a liquid within a tank over time;
activating a temperature control element based on the changes in temperature;
tracking an activation state of the temperature control element;
defining, based on the tracking step, a schedule of classified time slots, each of the time slots classified based on an amount of time that the temperature control element is activated during a time period corresponding to the respective time slot;
automatically selecting a temperature threshold based on the ~~detecting step~~ schedule of the classified time slots; and
controlling the temperature control element based on the selected temperature threshold.

35. (New) The system of claim 1, wherein the first time period and the second time period are during the same time of day on different days, respectively.

36. (New) The system of claim 1, wherein the logic is configured to activate the temperature control element during the first time period based on a comparison between a value indicative of a temperature sensed by the temperature sensor and the first temperature threshold, the logic further configured to automatically make a determination, prior to the second time period, that a high usage of the liquid residing within the tank is expected based on the tracked usage of the temperature control element and to select the second temperature threshold based on the determination, wherein the logic is further configured to activate the temperature control element based on the comparison between the selected temperature threshold and the value indicative of the temperature detected by the temperature sensor during the second time period.

37. (New) The system of claim 11, wherein the usage history defines a schedule of classified time slots, each of the time slots classified based on an amount of time that the temperature control element is activated during a time period corresponding to the respective time slot.

38. (New) The system of claim 22, wherein the logic is further configured to establish the temperature threshold based on a comparison between the value and a threshold.